

here we are confronted with the fact that all differential observations are more or less affected with the variable "personal equation" among observers. The measure of conclusions is more or less in error, and the elimination of the variable is not a mathematical possibility. It follows, therefore, that a definition of the word SPECIES is almost an impossibility, the judgment of a naturalist being a controlling factor. This is a serious and unalterable fact. The most unselfish and conscientious naturalists will often radically disagree on the validity of a species. Others without a surplus of conscience, candor or brains, will go on making species *ad libitum*, to the end of time.

As a result of such diffusiveness, the birds, fishes, insects, shells, and plants, have generally been named three or four times over. This condition is discreditable to science, and Congresses of scientists are not able to remedy the evil. An epidemic of this sort is raging in Europe, and the "New School" mills are grinding out species by the hundreds.

The animus of species mongers is often visible, and not praiseworthy. Posing as scientists, they grasp nomenclature and bandy names about football fashion, with a nonchalance that takes away the breath of astonished beholders and raises the hair on end. The vocation of such gentry is that of the "Bulls and Bears," tearing down what others labored hard to build up, and raising standards which a later litter of "Bears" will demolish.

A FEW NOTES ON PISIDIA.

BY DR. V. STERKI.

It is hoped that our fellow conchologists will not feel chilly when reading this title, but kindly excuse the writer for coming again with Pisidia. The *Cycladidae* are in order at present, and the season for collecting is at hand. Many conchologists in the East and West, North and South of our country are prepared to do vigorous collecting, and many others not yet enlisted will probably join them, so that, in all probability, more will be done in this line than at any previous time. And there is no doubt that the results will be highly satisfactory. Almost every sending coming in from the comparatively few places where collecting has been done so far, brought up some new form or forms which may prove to be new species, or varieties, by comparing them with more materials from other places.

By the perplexing variability of some members of this group, it is too unsafe to establish new species upon a few specimens coming from a single locality.

The headquarters of these smallest Bivalves, and so probably of *Sphærium*, are the region of our great lakes, which, in fact, seems to be the richest on the globe. And here, too, a serious difficulty is added to the one already lying in the embarrassing richness of forms itself. The deep water mussels are decidedly different from the shallow water and shore forms, reduced in size, and less characteristic in shape, striation, color, hinge formation, etc., hence the double difficulty in ascertaining their true relations with the shallow water, river, pond and shore forms on the one hand, and among themselves on the other. Such is the teaching of the materials brought up so far from some deeper places of the lakes, mainly by the efforts of the Michigan Fish Commission, as I understand, upon the encouragement of Mr. Bryant Walker. There also is a field for successful work; the use of the dredge.

Another point may as well be mentioned here. It is an open question how far *Cycladidæ* are able to exist in brackish water, of rivers and creeks emptying into the sea, and in salt marshes. Conchologists having chances to collect in such places are invited to pay the matter their attention. The researches may be extended to other fresh water mollusks at the same time.

A few hints must be added for those collecting and sending *Pisidia* (and *Sphæria*). 1. Not even the smallest specimens should be overlooked, as some forms are very minute, and the young of all are of interest and value. 2. It is not only annoying, but really perplexing and deceptive, to examine lots where a part of the specimens had been picked out previously. Thus the larger, mature and characteristic examples of one or several species may be wanting, while the younger and poorer are represented in the remnants. Whole suites only can afford a true conception of a species, variety or local form. Mixed lots, however, are the most desirable for examination, separated only for considerable differences in size of the specimens.

Several conchologists lately have sent living *Pisidia*, which arrived alive and could be kept alive for some time, observed and examined for the soft parts. I would solicit the sending of more such. They should be packed up with damp moss, or other similar material, in receptacles admitting air, not in tightly corked vials.